

## Bently Nevada's Field Alignment Kit

### Full-featured laser alignment



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**F**or over 20 years, Bently Nevada has provided services related to machinery alignment, as detailed in the previous issue of ORBIT. In the article *Bently Nevada's Alignment Services*, we noted that our new Field Alignment Kit would soon be released and that it was already being used by our Global Services organization. Their mission? To confirm that the product meets customers' alignment needs. Is it rugged? Is it easy to use? Does it contain the right features? These questions and others were answered by our service organization. We are now pleased to announce the general availability of the Field Alignment Kit.

With its laser-based hardware and companion Microsoft Windows®-based software called Bently ALIGN™, our Field Alignment Kit provides all the features needed for performing highly accurate alignments, and it is suitable for the rigors of portable field use. The kit is based on the "reverse dial indication" method of performing shaft alignment. To accomplish this, laser/detector heads are mounted on the shaft ends facing each other. The laser from one head is incident on the detector of the other, and vice-versa. When the shafts are rotated together through 360 degrees, the lasers will "migrate" on the detectors. The Field Alignment Kit accurately measures this movement. Knowing this movement and some machine parameters (input by the user), the kit then calculates the machinery misalignment and provides the feedback for correction. The instrument can also calculate misalignment with only 90 degrees of shaft rotation. This is important because more times than not obstructions limit the rotational angle available to the operator. Each laser/detector head is equipped with its own inclinometer so that shaft alignment can be performed on machines that are not coupled together.

#### Field Alignment Kit:

- Bently ALIGN™ software
- Stationary head
- 3-m (10-ft) serial cable
- 15.2-cm (6-in) slide rod
- 3-m (10-ft) tape measure
- Hardware manual
- Post holder
- Carrying case
- PC card
- Moveable head
- Chain assembly
- 7.6-cm (3-in) slide rod
- V-block assembly
- Quick reference card
- Wrench





Field Alignment Kit in use.

### Product features

The Field Alignment Kit provides accurate shaft-to-shaft alignment measurements in a portable kit that is rugged, lightweight, accurate, and easy to use. Product features include:

- Coupled and uncoupled shaft alignment
- Only 90 degrees of shaft rotation required
- Manual and automatic data collection modes
- Thermal growth compensation
- Detectors “mapped” for high accuracy
- Each alignment “run” stored in a database and can be deleted or averaged with others

- Alignment tolerance chart capabilities
- Reduced setup time by importing configurations
- Software updates easily downloaded from our corporate website

### Product options

It may be desirable to use a Field Alignment Kit in conjunction with several computers. It is also convenient to have the software installed solely for viewing saved alignment databases. For these reasons, we offer Bently ALIGN™ software with multiple user options: single, three, five, or unlimited users.



Bently ALIGN™ software screen.

### It's all about choices

Now the choice is yours – tools or service. Bently Nevada can provide either or both to assure your equipment is aligned properly. Contact your nearest Bently Nevada sales or service professional today to learn more, and be sure to visit our website at [www.bently.com](http://www.bently.com) for a product data sheet with detailed specifications and additional information on this powerful alignment tool. ☺

## ANNOUNCEMENT

### Dr. Katsuhiko Ogata Receives the 1999 John R. Ragazzini Education Award

**D**r. Ogata, professor of Mechanical Engineering at the University of Minnesota, received the John R. Ragazzini Education Award from the American Automatic Control Council for distinction over a period of thirty years in writing widely recognized system dynamics and controls textbooks. He is the author of seven textbooks, three of which have been published in multiple editions, and most of which were translated into foreign

languages. His most notable book, Modern Control Engineering, is recommended reading for Bently Nevada and Bently Rotor Dynamics Research Corporation engineers. After learning of the award, Donald E. Bently, Founder, Chairman, and CEO of Bently Nevada Corporation, wrote to Dr. Ogata, “The Ragazzini Award is testament to your excellence in communicating and teaching the important subject of control theory.” ☺